Engineering of Advanced Software Solutions (EASS)

HIT, Israel

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2022

- Admin
- Technical debt
- Business logic
- Bash and commandline (based on MIT's missing semester)
- Git, GitHub
- Interactive class

Admin stuff

- Discord
- Github account
- HW on Github
- Creating a Canvas account (https://canvas.instructure.com/)
- AWS on Cavnvas
- LinkedIn
- Commandline (WSL)
- Docker
- Moodle (minimal interaction over there)
- Volunteer to summarize the lectures
- Stackoverflow
- Engagment on Discord
- Hackernews

References:

Missing Semester MIT
AWS cloud certificate

What is Technical Debt?

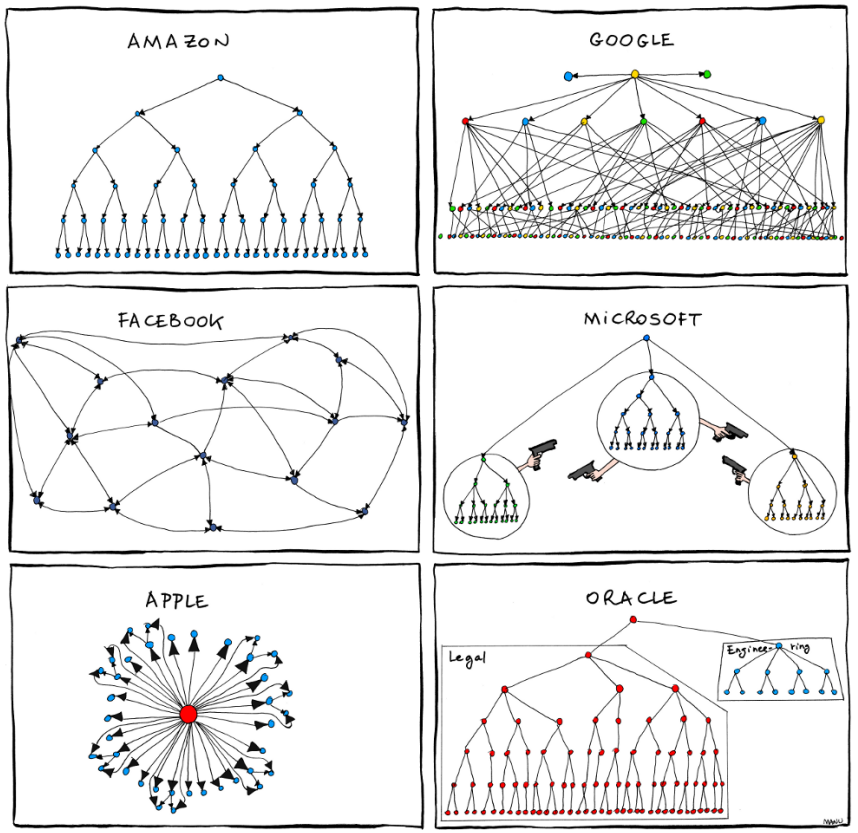
- “In software development, there is always a constant need to balance speed and quality. Some quality will always have to be sacrificed to release features within a reasonable timeframe, so any of these shortcuts will often be tasked as future projects. Those unattended tasks become what is called technical debt.”
- “There are several reasons why technical debt happens. Product owners may focus more on the need to implement and release new features and less on fixing past problems or create a generic enough infrastructure to support future developments. In some severe cases, product owners completely underestimate the outcomes of dealing with poor infrastructure, bugs and poorly designed software.”
- “Ultimately, technical debt can sometimes lead to software users having bad experiences and thereby increasing user churn rates. Together, a lack of developer awareness and task ownership can lead to more technical debt.”

References:

https://logz.io/blog/technical-debt/

Business logic

- “**Business rules** are what your non-software developers tell you what your software needs to do.”
- “**Business logic** is the part of your code that specifically implements business rules.”



References:

https://softwareengineering.stackexchange.com/questions/234251/what-really-is-the-business-logic
http://www.ritholtz.com

Intro to commandline and tools (interactive)

- Vim
- Bash
- Git
- Docker

Bash

- `echo`, `while`, `find`, `vars`, `printenv`, `htop`, shebang, wild cards
- `cp`, `touch`, `mkdir`, `ls`, `uniq`, `awk`, `rm`
- `man man`
- brew
- `wget`
- `curl`

References:

https://missing.csail.mit.edu/2020/shell-tools/

Sneak peek to docker

- `docker run`
- `docker ps`
- `docker run -ti`

Stackoverflow good questions usually have

1. Problem statement
2. Sample code and data
3. Spelling, grammar and formatting

Example:

https://stackoverflow.com/questions/11227809/why-is-processing-a-sorted-array-faster-than-processing-an-unsorted-array

References:

https://codeblog.jonskeet.uk/2010/08/29/writing-the-perfect-question/
https://stackoverflow.com/help/how-to-ask

First task

- Checkout github classroom and the first task about git and github
  https://classroom.github.com/classrooms/99552739-eass-hit-2022-part-a

Good luck to all of us

Be active on EASS discord and try to learn and help each other as much as you can.